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ABSTRACT

In an effort to hold schools accountable, Arkansas added grade inflation into the accountability system. The Arkansas Legislature mandated that the Arkansas Department of Education identify high schools with "statistically significant variance" between students' grade point averages (GPAs) and ACT performances. A grade inflation index developed and applied to the high schools found 46 schools with inflated grades. These schools were listed in the newspaper. Examination of grade inflation at one rural school revealed many problems with identifying such schools. The paper suggests that the practice of "accusing" schools of inflating grades based on only 1 year of data is irresponsible. For the rural school, in only 1 of 5 years would the school have been identified under the state's formula as having inflated grades. Another problem with the statistical analysis used to indict this and similar schools was the sample. Rural schools often have small numbers in their senior classes. A sample ratio analysis utilizing these small numbers cannot be reliable due to the large amount of variability in small samples. Other variables were also not considered in the grade inflation issue (students identified as having inflated grades also had 3.0 or higher GPAs in college, and all students at the school in question who might consider attending college are encouraged to take the ACT, not just high achievers). (SM)

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Accountability and Grade Inflation in a Rural School

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Accountability and Grade Inflation in Rural Schools

In the greater context of accountability, a question has arisen concerning the grades American students receive in high school and college. The College Board reported that the percentage of students taking the Stanford Achievement Test (SAT) who reported having an A average in high school rose ten percentage points in ten years, while students' scores on the SAT fell an average of twelve points. This, according to College Board President Donald M. Stewart, is because of grade inflation. (Ilonan, 1998). Ziomec and Avec (1995) also reported a national problem with grade inflation by citing a lack of rising scores on the ACT coupled with a rise in students' reported grade point averages. Others, however, contend that there is no grade inflation problem. A 1992 Rand Corporation study reported no substantial grade inflation in mathematics between 1982 and 1992. After reviewing 20 years of transcripts of over 20,000 students, Clifford Adelman, an Education Department senior analyst, reported that there was no way to assess whether or not grades are inflated (Mathews, 2002). And, Kohn (2002) asserted that it is difficult to substantiate a claim that grades have been rising and that no one has demonstrated that students receive A's today for the same work for which students previously received B's and C's.

The issue of grade inflation is couched within the greater issue of accountability. Politicians cry out, "We must hold schools accountable." Administrators respond saying, "We must hold teachers accountable." Teachers cry, "But when will we hold students accountable?" It is clear that many people want someone to be held accountable for the learning of American school children, but this debate raises many questions. Whose

standard will be used to judge success and failure? Who gets to define success? Politicians? Educators? Parents? Or, maybe the companies that publish the standardized tests. And, if the publishers' tests are the instruments to be used, who decides what score on these tests denotes "success"?

Problems inherent in the current push for accountability have created situations, such as the debate over grade inflation, where the numbers seem to have become more important than the people represented by those numbers. In the rush to hold people accountable, indictments have been brought accusing schools of doing a poor job of educating students. In the effort to hold schools accountable, at least one state decided to add grade inflation into the accountability system and identify high schools that had inflated grades.

The Mandate

Act 1660 of 2001 passed by the Arkansas Legislature mandated that the Arkansas Department of Education identify any high school in Arkansas that had a "statistically significant variance" between its students' grade point averages and their performances on the ACT. A grade inflation index was developed by the state and applied to the state's high schools resulting in 46 schools being listed in the newspaper for inflating grades. The administration at one particular school had applied the formula to the local district's data and had determined that their school would not be identified as having inflated grades. However, on March 28, 2002 that high school was identified in an article that appeared on the front page of the *Arkansas Democrat Gazette* that was headlined, "State accuses 46 high schools of grade inflation." The fact that the school was listed in the

article set in motion an attempt to determine why there was a discrepancy: why the school was listed as having inflated grades when the curriculum coordinator had applied the state's formula and determined that the school did not, by the State Department of Education's formula, have inflated grade.

The problem became clear when the curriculum coordinator determined that she used data from the wrong year: she had applied the state's formula to the senior class of 2002, not 2001. This raised a question about just how often the school would have been identified as being grade inflated by the formula. If the application of the formula would identify the school one year but not the one after, then the administration wondered, "What about the year before?" Data were compiled for 5 years and the formula applied to each year (See table). Using the state's formula for identifying grade inflation, it was determined that with the identified index of grade inflation, this school would have been identified in only one of the past five years as being a school suffering from grade inflation.

Table

Comparison of Grade Inflation by Year

Year	# Taking ACT	# Identified by Formula	Inflation Index
1998	23	9	.38
1999	19	10	.47
2000	14	6	.43
2001	15	9	.60*
2002	26	11	.42

Note: Inflation index cut for being identified was .50

A researcher from the University of Arkansas who had been instrumental in the development of the formula for identifying schools with grade inflation was quoted as saying that many people argue against using standardized testing to measure students' achievement in school, but went on to say that it was time to realize that Arkansas schools are not teaching their kids what they need to know to be successful (Dishongh, 2002). For this study, a follow-up telephone survey was conducted of the 2001 graduates of the school in this study who were identified as having inflated grades. Seven of the nine students reported they were doing "fine." All reported that they had a 3.0 or higher grade average in college and these students were attending the three largest state-run universities.

Discussion

A examination of the grade inflation question at the school in question revealed many problems with identifying schools with inflated grades. The practice of "accusing" schools of inflating grades is questionable, but to make such an accusation based on only one year's data is irresponsible. For the school in question, in only one year out of five would the school have been identified under the state's formula as having inflated grades. Another problem with the statistical analysis used to indict this and similar schools was the sample. Rural schools often have small numbers in their senior classes. A simple ratio analysis utilizing these small numbers cannot be reliable due to the large amount of variability in small samples. The school in question had only 15 seniors who took the ACT in 2001; this was 43 % of the senior class. In 2002, 48% of the 2001 senior class was in college and all students reported a 3.0 or higher grade average in college.

There were other variables not considered in the grade inflation issue. Students identified as having inflated grades also had 3.0 or higher grade point averages in college. This could indicate several things. It could mean that the students had achieved beyond their capabilities, or it could mean they had received help. It could also mean that, contrary to grade inflation indicators, they were ready for college.

The mandate from the Arkansas Legislature to address grade inflation, according to the article in the *Arkansas Democrat Gazette,* came about because nearly half of the graduates from Arkansas High schools had not scored at least 19 on either the mathematics or English portion of the ACT, and had therefore had to take at least one remedial class upon entering college. (Dishongh, 2002). This was cited as evidence that students do not know what they need to in order to be successful in college. When asked if ACT had gone on record as saying that scoring a 19 on the ACT test was a predictor of students' success in college, an ACT research analyst reported ACT had found that a score of 12 on the English portion of the ACT indicated that a student should be able to make at least a C in College English, and that a score of 19 on the math portion indicated that a student should be able to make at least a C in College Algebra (Noble, Telephone Interview, April 2002). If ACT's prediction that a student scoring 12 on the English portion of the ACT should be able to make a C in college English, then many students may have had to take remedial English who could have made at least a C in College English without the remediation. This could significantly lower the number of students taking remedial classes, and calls into question the practice of labeling students who have not scored 19 or more on the ACT "not ready for college"; if taking the class is a sign

that a student is not successful then perhaps the problem is with identifying students by the state's formula. It may be, based on their grade point averages in college, that some students were not ready for the ACT but were ready for college.

Another issue not considered in the state's evaluation was that all students at the rural school in question who might consider going to college are encouraged to take the ACT, not just the highest achieving students. If the practice persists of identifying schools under the present state formula, schools may have to police which students are allowed to take the ACT.

Conclusion

The current emphasis on accountability, especially the criteria outlined in the No Child Left Behind Act, has caused many State Departments of Education to initiate actions to identify schools that are not effective. When these endeavors identify schools as failing in some aspect, especially before all variables affecting the situation are considered, the irresponsible manipulation of numbers leaves wounded individuals in its wake. School administrations must now maintain local data bases and have someone within the district who can analyze data in order to hold accountable those who are responsible for accountability. Furthermore, politicians and those is power need to be aware that small schools tend to be different from larger schools and that statistical manipulations that seem appropriate for larger classes of students need to be moderated when exploring small rural schools.

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